

What is claimed is:

1. An optical module comprising;
a planar lightwave circuit chip comprising a substrate and a waveguide forming region located on said substrate,
5 a plurality of lids installed along a edge surface at least at one side of the edges of said planar lightwave circuit chip,
an optical fiber array connected to said planar lightwave circuit chip.
2. The optical module according to claim 1, wherein a plurality of lids are
10 installed along each of the opposed edges of the said planar lightwave circuit chip.
3. The optical module according to claim 2 wherein said lids are installed at each four corner of said planar lightwave circuit chip.
- 15 4. The optical module according to claim 2 or 3, wherein said lids are installed and fixed to said planar lightwave circuit chip so that the edge surface of said lids and the edge surface of said planar lightwave circuit chip are on the same plane, and said edge surfaces of said lids and said
20 planar lightwave circuit chip are polished together.
5. The optical module according to claim 1 or 2, wherein at least one of said plurality of lids is installed on a place where an optical waveguide to which said optical fiber array is connected is installed in said waveguide
25 forming region.
6. The optical module according to claim 1 or 2, wherein at least one of said plurality of lids is installed on a place where an optical waveguide to which said optical fiber array is connected is installed in said waveguide
30 forming region, and at least one of said plurality of lids is installed on a place where an optical waveguide to which said optical fiber array is connected is not installed in said waveguide forming region

7. The optical module according to claim 1 or 2, wherein a circuit of the optical waveguide located on said waveguide forming region is a circuit of an arrayed waveguide grating.

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8. The optical module according to claim 2, wherein said two opposed edges of said planar lightwave circuit chip are an edge of an optical input side and an edge of an optical output side, and a plurality of lids are installed with the predetermined distance.

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9. The optical module according to claim 8, further comprising a temperature control apparatus which adjusts temperature of said planar lightwave circuit chip contained in a package.

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